UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,426	03/02/2004	Steven Barone	1035-2 PCT US CIP	5403

7590 12/08/2008

Peter DeLuca
Carter, DeLuca, Farrell & Schmidt, LLP
Suite 225
445 Broad Hollow Road
Melville, NY 11747

EXAMINER	
BARTON, JEFFREY THOMAS	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
12/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/791,426	BARONE, STEVEN	
	Examiner	Art Unit	
	Jeffrey T. Barton	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 October 2008 has been entered.

Response to Amendment

2. The amendment filed on 15 October 2008 does not place the application in condition for allowance.

Status of Rejections Pending Since the Office Action of 10 April 2008

3. All rejections are maintained.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ploke. (U.S. 3,162,766)

Ploke discloses a photoelectric receiver with an optical element to concentrate the light as shown in figure 2.

Regarding claim 1, figure 2 shows a photoelectric receiver, 3, a device that produces current upon receipt of light; structurally a solar cell. The figure further shows at least one optical element, 9, having a plurality of lenses, curves 10, superimposed on the curved surface of a larger lens. (i.e. the "larger lenses" are the two inward-facing curved larger lenses on element 9, with a plurality of smaller lenses that are shown in the curved surface 10, superimposed on the surface of these larger lenses) Comparison of the inner face of the lens of Figure 2 of Ploke with Applicant's Figure 5, in the context of the claim language and instant specification, provides no indication of a patentable difference.

Regarding claim 2, figure 2 further shows a housing having an opening for receiving radiation, the housing supporting the at least one optical element adjacent the opening and photovoltaic material.

Regarding claim 3, figure 2 shows directing means, 11a, for directing radiation emerging from the optical element towards the photovoltaic material (column 3, paragraph 1).

Regarding claim 8, Ploke discloses the optical element comprises a Fresnel lens (figure 2 and column 3, paragraph 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ploke as applied to claims 1-3 and 8 above, and further in view of Nicoletti et al. (U.S. 7,173,179).

The disclosure of Ploke is as stated above for claims 1-3 and 8.

The difference between Ploke and the claims is the requirement of a specific directing means.

Nicoletti teaches a solar device and that a mirror or prism can be utilized to direct light (column 12, paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a mirror or prism as in Nicoletti as the reflective element in Ploke because it is known in the art as shown by Nicoletti, to utilize mirrors or prisms as

reflective materials to direct light. Because Ploke and Nicoletti are concerned with direction of radiation, one would have a reasonable expectation of success from the combination. Thus the combination meets the claims.

9. Claims 6, 7, 9-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ploke as applied to claims 1-3 and 8 above, and further in view of Lawheed (U.S. 6,696,637).

The disclosure of Ploke is as stated above for claims 1-3 and 8.

The differences between Ploke and the claims are the requirement of a plurality of elements or an array of elements.

Lawheed teaches a device to convert solar energy as shown in figure 26. The device comprises an array or plurality of optical elements and solar cells coupled together with one housing.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the array configuration of multiple cells and multiple optical elements of Lawheed with multiple devices of Ploke because the array configuration allows for more radiation to be received, more power to be produced, and thus more possible applications for the device. Because Ploke and Lawheed are concerned with conversion of radiation into energy, one would have a reasonable expectation of success from the combination. Thus the combination meets the claims as multiple devices of Ploke meet all the claim requirements outlined with regard to claims 1-3 and 8 above.

10. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ploke in view of Lawheed as applied to claims 6, 7, 9-11 and 14 above, and further in view of Nicoletti et al. (U.S. 7,173,179).

The disclosure of Ploke in view of Lawheed is as stated above for claims 6, 7, 9-11 and 14.

The difference between Ploke in view of Lawheed and the claims is the requirement of a specific directing means.

Nicoletti teaches a solar device and that a mirror or prism can be utilized to direct light (column 12, paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a mirror or prism as in Nicoletti as the reflective element in Ploke in view of Lawheed because it is known in the art as shown by Nicoletti, to utilize mirrors or prisms as reflective materials to direct light. Because Ploke in view of Lawheed and Nicoletti are concerned with direction of radiation, one would have a reasonable expectation of success from the combination. Thus the combination meets the claims.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,700,055 in view of Ploke. (U.S. 3,162,766). The claims of U.S. Patent 6,700,055 disclose all the features of the presently claimed invention except for the optical element having a plurality of lenses superimposed on the surface of a larger lens. Ploke teaches an optical element having a plurality of lenses superimposed on the surface of a larger lens (figure 2, element 9 with larger lens 8, and plurality of lenses 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include this optical element within the device of U.S. 6,700,055 because the element concentrates the light onto specific points of the photovoltaic material in one element rather than the separate elements utilized within U.S. 6,700,055. Because Ploke and U.S. 6,700,055 are concerned with optical elements for photovoltaic cells, one would have a reasonable expectation of success from the combination.

Response to Arguments

13. Applicant's arguments filed 10 June 2008 have been fully considered but they are not persuasive.

Applicant argues that Ploke does not teach or suggest a plurality of lenses superimposed on the curved surface of a larger lens. The Examiner respectfully disagrees. The curves indicated at 10 in Figure 2 of Ploke are considered to read on such a plurality of lenses. Such structure is further described at column 1, lines 41-45 of Ploke. These optical elements correspond to the instant plurality of lenses, with the two inward-facing lenses of structure 9 of Ploke corresponding to larger lenses, on which the plurality of smaller lenses are superimposed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jeffrey T. Barton whose telephone number is (571)272-1307. The examiner can normally be reached on M-F 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey T. Barton/
Art Unit 1795
5 December 2008